



BEYOND LIP SERVICE: INTEGRATING ORAL HEALTH INTO PUBLIC HEALTH - YEAR 1 – 2005

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OBJECTIVES: 1) Integrate oral health data into the Secure Public Health Electronic Records Environment (SPHERE); 2) Include county oral health data into community health improvement plans; 3) Improve access to preventive services.

METHODS: *Beyond Lip Service* is targeted to Wisconsin's DHFS Northern Region local health departments (includes tribal health centers). The 2001 Make Your Smile Count Survey of Wisconsin third-graders found that 46 percent of the Northern Region's children had untreated decay – the highest of any region in the state. Local health departments and tribal health centers applied for one or more oral health mini-grants: 1) Surveillance and 2) Fluoride programs (community water fluoridation, dietary fluoride supplement, fluoride mouthrinse, and fluoride varnish). SPHERE enhancement included oral health assessments (screening) and prevention interventions (services). Public health nurses and dental hygienists were trained using the *ASTDD Basic Screening Survey* and *DHFS Integrating Preventive Oral Health Measures into Healthcare Practice* for surveillance (data collection) and early childhood caries prevention (fluoride varnish) programs.

RESULTS: Six health departments and a tribal health center were funded. Four local health departments conducted Make Your Smile Count third grade screenings on 422 children. The tribe purchased fluoridation equipment (approximately 4,000 residents), a health department expanded a fluoride mouth rinse program serving 285 children, and fluoride varnish programs were implemented in five counties in cooperation with Head Start, preschool, and daycare programs serving 413 unduplicated children, with 890 fluoride varnish activities. SPHERE reports show 1,058 children were provided screening and prevention services.

CONCLUSION: Beyond Lip Service integrated oral health data into SPHERE, reports and community plans, and increased access to primary prevention.

FUNDING: Funding for this project was provided by the University of Wisconsin School of Medicine and Public Health from the Wisconsin Partnership Fund for a Healthy Future. This fund was created by a \$300 million endowment from the conversion of Blue Cross/Blue Shield United of Wisconsin to a for-profit company. Administered by the University of Wisconsin Medical School and designated for population health initiatives, the fund distributes grants for “community-academic partnerships” to eligible public and non-profit organizations on an annual basis. The DHFS Northern Region Oral Health Consultant, funded by the Health Resources Service Administration (HRSA), State Oral Health Collaborative Systems grant, provided local health department training and technical assistance.

Secure Public Health Electronic Records Environment (SPHERE) Oral Health Assessment Screenshot

| Oral Health Assessment | |
|---|---|
| Date of oral health assessment: | 12/06/2005 |
| Early Childhood Caries (Ages: 9 months - 6 years): | <input type="radio"/> Yes <input checked="" type="radio"/> No |
| Untreated Caries (Ages: ALL): | <input checked="" type="radio"/> Yes <input type="radio"/> No |
| Treated Caries (Ages: ALL): | <input type="radio"/> Yes <input checked="" type="radio"/> No |
| Missing Permanent Molar due to Dental Caries (Ages: ALL): | <input type="radio"/> Yes <input checked="" type="radio"/> No |
| Sealants on Permanent Molars (Ages: 6 years - 18 years): | <input checked="" type="radio"/> Yes <input type="radio"/> No |
| Treatment Urgency (Ages: ALL): | <input type="radio"/> No obvious problem <input type="radio"/> Early dental care <input checked="" type="radio"/> Urgent care |
| Natural Teeth (age 16 yrs. and over): | <input type="radio"/> Yes (1 or more natural teeth) <input checked="" type="radio"/> No (full dentures) |

DISCUSSION: This program demonstrates a model that successfully integrates oral health into public health systems through including oral health data in the Secure Public Health Electronic Records Environment (SPHERE). It provides readily available county oral health data for community health improvement plans and improves access to preventive services. The mini-grant process provides local health departments with the opportunity to choose interventions that meet the needs of their communities. The Division of Public Health Grants and Contracting system efficiently allocates grant funds and tracks fiscal and mini grant objectives for program accountability.

RECOMMENDATION: Year 2 of the grant will expand the program with additional grantees and oral health SPHERE data entry training activities will be undertaken to optimize data quality.

PREVENTIVE INTERVENTION OUTCOMES: By 12/31/05 six local public health departments (Ashland, Bayfield, Iron, Price, Wood, and Vilas) in the Northern Region of Wisconsin integrated preventive oral health services data into SPHERE.

We served 1,058 unduplicated children using a **preventive intervention** (oral assessment (screening), fluoride varnish application or fluoride mouthrinse applications) through the Beyond Lip Service grantee health departments.

Key Findings:

- >28% (285 children grades 1-5) participated in a school based fluoride mouthrinse program
- >72% (773 children) received **oral health assessments (screening)**
 - ~55% (422 unduplicated children) participated in the Bayfield Consortium and Price County Health Department Make Your Smile Count third grade surveys
 - ~43% (336 children) were ages 9 months – 6 years and screened as a part of a fluoride varnish service delivery
 - 8.0% (27 children) had early childhood caries (data available from Price and Wood counties)
 - ~2.0% error rate in data entry

Of 773 unduplicated children receiving **oral health assessments (screening)**, ages 0-10 years, in the five BLS counties:

- >68.5% (530 children) had no obvious treatment needs
- >31.7% (245 children) were in need of dental treatment
 - ~28.3% (219 children) had early dental treatment needs
 - ~ 3.3% (26 children) had urgent dental treatment needs
- > 0.3% error rate in data entry

413 unduplicated children received fluoride varnish placement (**delegated function**).
>890 activities to apply fluoride varnishes were completed by the five BLS grantees

SURVEY OUTCOMES: By 12/31/05 four northern Wisconsin counties (Ashland, Bayfield, Iron and Price) conducted *Make Your Smile Count* surveys, screened 422 third grade children for baseline to develop community oral health plans and entered data into SPHERE.

Method: Within each county, public schools with 10 or more children enrolled in third grade were eligible for inclusion. Of the 15 schools meeting this criterion, 14 agreed to participate in the oral health survey. A total of 422 children were screened at the 14 schools. Double data entry was used to validate the data collection.

Results:

- >The children ranged in age from 8-10 years with the majority (63%) being 8 years of age.
- >52.9% of the children screened were male while 47.1% were female.
- >82.1% of the children were white non-Hispanic, 11.9% were American Indian, 2.9% were Native Hawaiian/Pacific Islander, and 2.1% were Asian.
- >66.6% of the children had a history of dental caries – at least one primary or permanent tooth with untreated decay or a filling.
- >41.7% of the children had untreated decay.
- >38.4% of the children were in need of early dental care while and additional 3.8% needed urgent care because of pain or infection.
- >58.8% of the children had at least one dental sealant.
- >Compared to white non-Hispanic children, the minority children screened were more likely to have decay experience and untreated decay.
- >Minority children were less likely to have dental sealants.
- >Compared to all Wisconsin 3rd grade children, the children screened in Ashland, Bayfield, Iron and Price Counties were more likely to have decay experience, untreated decay and dental sealants.